

лон **АОБ-**Б Р 2:59

OFFICE DEFECTS INVESTIGATION

041-394 (19 page)

July 2, 2004

Mr. Kenneth N. Welnetein
Associate Administrator for Safety Assurance
National Highway Traffic Safety Administration
400 Seventh Street, S.W., Room 5321
Washington, D.C. 20590

Dear Mr. Weinstein:

The following information is submitted in accordance with the defect reporting regulation in Title 49 of the Code of Federal Regulations Pursuant, Part 573 – Defect and Non-compliance Responsibility and Reports.

1/2

DASSAW INC.

DASSAW INC. 573 REPORT

MANUFACTURER: Daewoo Motor Company Limited (DWMC)

GM Daewoo Auto & Technology Company (GMDAT)

IMPORTER:

Daewoo Motor de Puerto Rico, Inc. (DMPR)

IDENTIFICATION

OF MOTOR VEHICLES

INVOLVED:

Certain 1998/1999/2000/2001/2002/2003 model years Daewoo Lanos passenger cars produced in Korea from March 9, 1997 through

December 20, 2002

Certain 1998/1999/2000/2001/2002/2003 model years Daewoo Nubira passenger cars produced in Korea from March 27, 1997 through

December 18, 2002

Certain 1998/1999/2000/2001/2002 model years Daewoo Leganza passenger cars produced in Korea from June 3, 1997 through December

5, 2001

NUMBER OF AFFECTED

VEHICLES:

4,305 vehicles

in addition, up to 11,605 vehicles, some of which were instalted with the suspect camehaft sensors outside warranty repair processes, will be recalled in accordance with separate customer notifications and inspected to determine if the vehicles are effected by this recall campaign

PERCENTAGE OF MOTOR VHICLES ESTIMATED TO CONTAIN THE

DEFECT:

0.3 %

DESCRIPTION

OF DEFECT:

Malfunction indicator Lamp (MIL) may be on and camehaft sensor may melt with smell and smoke, which may subsequently lead to melt a front portion of camehaft cover and a wiring harness near camehaft sensor, due to C2 capacitor crack in PC board of the camehaft sensor. The suspect carnshaft sensors were supplied for assembly and service repair by Delphi since October 2001.

CHRONOLOGY OF PRINCIPAL EVENTS:

Deewoo Motor detected a problem with the camshaft sensor from a field performance data dated May 17, 2002 generated in Puerto Rico.

Delphi started production of improved camehaft sensors in Mexico on November 18, 2002.

GM Daewoo Auto & Technology started to apply the Improved carnshaft sensors in the production of vehicles on January 21, 2003 in Korea.

The number of reports with a field problem related to the suspect camshaft sensors is 88 cases.

DESCRIPTION OF CORRECTIVE ACTION:

DASSAW INC. will conduct a safety-related recall campaign to replace the suspect campaign teamsors and install additional in-line 5A fuse in the affected vehicles. The additional 11,605 vehicles will be inspected to determine if the vehicles are effected by this corrective action, and corrected with same remedial work if determined within the recall population.

COPY OF NOTICES:

Copies of the notification letter and service bulletin to be sent to vehicles owners and dealer shops respectively are enclosed.

CAMPAIGN NUMBER:



June 28, 2004

Via Fax and Electronic Mail.

DASSAW Inc. 33 Belivia, Third Floor Suite 301 San Juan P.R. 00917

Re: Warranty Administrator Appointment Agreement - Recall

Dear Sirs:

This refers to Warranty Administrator Appointment Agreement (the "WAAA") dated June 16, 2004 by and between DASSAW Inc. and Nexus Business Solutions plc ("SPE").

Article 2.4.1, of the WAAA provides that "The Warranty Administrator shall conduct any and all recall work and service campaign work with respect to the Daewoo-branded Automobiles only upon and in accordance with the SPE's direction". In accordance with this provision Nexus Business Solutions hereby request that your company conduct the activities necessary to organize, coordinate and administrate the recall campaign as determined below;

- (a) Date of Decision: June 28, 2004
- (b) Territory: Puerto Rico
- (c) Affected vehicles:
 - i. 2002/2003 MY Daewoo Lanos passenger cars:
 - ii. 2002/2003 MY Daewoo Nubira passenger cara:
 - iii. 2002/2003 MY Daewoo Leganza passenger cara:
- (d) Date of Start: August 16, 2004

Necessary and reasonable costs and expenses actually incurred by your company in administrating the recall shall be determined and processed under the terms and conditions of the WAAA. Please advise us about such expenses in advance.

Please find enclosed the documents such as the 573 report, Customer notifications (two types), retailer letter, P n A CMP sensor and Service Bulletin, and file the 573 report to NHTSA.

We will appreciate your prompt attention on this matter

Yours sincerely

Richard Stark
Programme Director
Nexus Business Solutions Plc

[Proposed Customer Communication Type 1]

XX, 2004

Voluntary Recall Lancs, Nubira, Leganza Camshaft Position Sensor Warning Light ON / Thermal Incident

Dear Lanos, Nubira, and Leganza Owner,

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

With this letter, we wish to inform you of a voluntary recall that Daewoo has initiated to repair a potential problem with the camshaft position sensor of your Lanos, Nubira, Leganza products.

The Carnshaft Position (CMP) sensor sends a CMP sensor signal to the engine control module (ECM). The ECM uses this signal as "sync pulse" to trigger the injectors in the proper sequence. In rare instances, the internal circuit of carnshaft position sensor may be shorted. This would make the engine warning light ON or thermal incident on carnshaft position sensor.

The following Lanos, Nubira, Leganza units are covered by the recall:

- Lanos (VIN numbers 713722 to 749538)
- Nubira (VIN numbers 778133 to 853230)
- Leganza (VIN numbers 332187 to 333040)

Since the satisfaction of you and your family is Daewoo's utmost priority, we request that you have your vehicle repaired. Your dealer will check whether the carnshaft position sensor equipped with your car is involved in the recall range. If your car would be involved in the recall range, your dealer will replace the carnshaft position sensor and add the in-line fuse and ensure your vehicle is in good operating condition.

This service will be performed for you at no charge and should take about one hour. Thus, to minimize waiting time, you are advised to make an appointment in advance.

The enclosed Owner Reply Card Identifies your vehicle. Presenting the card at the time of your service will assist your Daewoo Dealer in completing this procedure in the shortest time possible. If you have sold or traded your vehicle, please let us know by completing the enclosed postage-paid reply card and returning it to us.

We apologize for any inconvenience this may cause you. We have taken this initiative in the interest of your safety and continued satisfaction.

Sincerely,

[Proposed Customer Communication Type 2]

XX, 2004

Voluntary Recall Lanos, Nubira, Leganza Camshaft Position Sensor Warning Light ON / Thermal incident

Dear Lanos, Nubire, and Leganza Owner,

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

With this letter, we wish to inform you of a voluntary recall that Daewoo has initiated to repair a potential problem with the camshaft position sensor of Daewoo Lanos, Nubira, Leganza products.

The Camshaft Position (CMP) sensor sends a CMP sensor signal to the engine control module (ECM). The ECM uses this signal as "sync pulse" to trigger the injectors in the proper sequence. In rare instances, the internal circuit of camshaft position sensor may be shorted. This would make the engine warning light ON or thermal incident on camshaft position sensor.

If you have taken your Daewoo in for service since October, 2001, because the instrument panel Check Engine warning light was on, you should immediately contact your Authorized Daewoo Dealer or Service Center for replacement of the Camshaft Position Sensor. Additionally, if you are a second owner of your Daewoo vehicle and/or are not sure if you have received service/repair for an illuminated Check Engine light, you should also immediately contact your Authorized Daewoo Dealer or Service Center to determine if your vehicle is effected by this voluntary recall action.

If you meet with above conditions, please refer to the possible VIN range for vehicle inspection.

- Lanos (VIN numbers 039514 to 714595)
- Nubira (VIN numbers 077610 to 769319, 970726 to 998150)
- Leganza (VIN numbers 029105 to 331434)

Since the satisfaction of you and your family is Daewoo's utmost priority, we request that you have your vehicle repaired. Your dealer will check whether the camshaft position sensor equipped with your car is involved in the recall range. If your car would be involved in the recall range, your dealer will replace the camshaft position sensor and add the in-line fuse and ensure your vehicle is in good operating condition.

This service will be performed for you at no charge and should take about one hour. Thus, to minimize waiting time, you are advised to make an appointment in advance.

The enclosed Owner Reply Card identifies your vehicle. Presenting the card at the time of your service will assist your Daewoo Dealer in completing this procedure in the shortest time possible. If you have sold or traded your vehicle, please let us know by completing the enclosed postage-paid reply card and returning it to us.

We apologize for any inconvenience this may cause you. We have taken this initiative in the interest of your safety and continued satisfaction.

Sincerely,

GM Daewoo to conduct voluntary recall on Lanos, Nubira, Leganza

MM DD, 2004

GM Daewoo Auto & Technology (GM Daewoo) announced today that it is recalling certain Lanos, Nubira, Leganza, Evanda, and Tacuma models to address potential problems with the camphaft position sensor.

On a total of [XY – use country specific number] Lanos, Nubira, Leganza, Evanda, and Tacuma units equipped with the faulty camshaft position sensor produced between MM DD, 2001 and MM DD, 2003 and vehicle units replaced with the faulty camshaft position sensor by Authorized GM Daewoo Dealer or Service Center and the camshaft position sensor will be replaced and the in-line fuse (5 Ampere) will be added. In rare instances, the camshaft position sensor could have a crack in the C2 capacitor of CMP sensor printed circuit board, making it possible to make the warning light On or thermal incident on camshaft position sensor.

All repairs relating to the replacement of the camshaft position sensor and the add of the in-line fuse will be performed free of charge.

[Proposed Retailer Communication in Puerto Rico]

XX, 2004

Recall Campaign Lanos, Nubira, Leganza Camshaft Position (CMP) Sensor Thermal incident

Dear Dealer/General Manager/Dealer Principal:

in extremely rare instances, the camshaft position sensor in certain model units above may has a crack in C2 capacitor on the printed circuit board, making it possible to make a thermal incident on camshaft position sensor under the engine operation. For this reason, we are announcing a voluntary recall of all potentially affected vehicles, effective XX, 2004.

Affected vehicles for the models above are two categories as follows:

- Category 1: Group of customers whose vehicles were produced with suspected CMP Sensor in manufacturing plant. All those vehicles shall be brought to your workshop by sending customer communication letter type 1 and get the subject CMP Sensor replaced with new one ,and add a fuse holder. The affected vehicles are:
 - Lanos (VDN numbers 713722 to 749538)
 - Nubira (VIN numbers 778133 to 853230)
 - Leganza (VIN numbers 332187 to 333040
- Category 2: Group of customer whose vehicles were serviced since October, 2001 because the instrument panel check engine light was on by either under warranty service or retail paid service.

 Please send customer communication letter type 2.

 When the vehicles will come to workshop, please inspect the CMP sensor's

When the vehicles will come to workshop, please inspect the CMP sensor's LOT number. If the LOT number of CMP sensor is in the range of 1267 to 2321, you would reptace the subject CMP sensor with new one ,and add a fuse holder. Otherwise, do not replace CMP sensor of the vehicle.

The customers VIN List of affected vehicles serviced under warranty will be sent to you separately. The affected vehicles are;

- Lanos (VIN numbers 039514 to 714595)
- Nublra (VIN numbers 077610 to 769319, 970726 to 998150)
- Leganza (VIN numbers 029105 to 331434)

Dealers are to service all vehicles subject to this recall campaign at no charge to customers beginning immediately, regardless of mileage, age of vehicle or ownership. However, even though customers visits with the customer letter or the enclosed Owner Reply Card, you should check the repair history of the vehicle and should check the camshaft position sensor whether the camshaft position sensor equipped with customer's vehicle is involved in this recall campaign according to the identification method described in page 1 of service bulletin.

You will soon be receiving a VIN list of all vehicles delivered to your dealership. Please use the attached sample letter and communicate by telephone or fax to notify your customers of this campaign as soon as possible.

The safety recall should be performed as described in the rework instructions for all vehicles identified on the list. Reworked vehicles should be properly identified as described in the attached instructions. Please forward the names and last known addresses/contact information of all owners who are unreachable to GM Daewoo's headquarter immediately.

Thank you for your ettention to this important matter and for sharing our goal of making every GM Daewoo customer's ownership experience the safest and happiest possible.

Sincerely,

[GM Daewoo]

Bulletin Number: OSB 03-1F-XXX

Date: June XX, 2004

Section: 01-Engine

Distribution: See Distribution



RECALL (Preliminary)

Subject: CMP (Camshaft Position) Sensor Thermal Incident

Models: Lanos, Nubira, Leganza, Evanda, Tacuma with Delphi EMS

Condition:

The CMP (Carnshaft Position) sensor in certain model units above the captioned subject has a crack in C2 capacitor on the printed circuit board, making it possible to make a thermal incident on CMP sensor or warning light ON during the engine operation.

Cause:

C2 capacitor in printed circuit board of CMP sensor was cracked. It had been found this crack was caused by stress during printed circuit board cutting process. The abnormal transient voltage may enter into CMP sensor very rarely with the cracked C2 capacitor. This makes it possible to make a thermal incident on CMP sensor or warning light ON.

Correction:

If the CMP sensor is involved in the affected range after inspecting the CMP sensor, replace the CMP sensor with new one and add a fuse holder to the engine wiring harness.

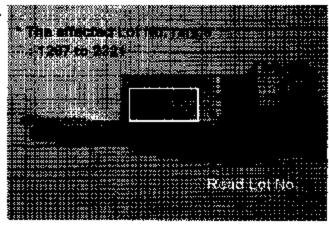
Working Procedures:

Nubire, Legenza, Evanda

- Remove the CMP (Camshaft Position) sensor. Refer to Service Bulletin Section 1F. Engine Controls.
- Inspect the CMP sensor's Lot No. whether the CMP sensor removed is involved in this recall campaign or not. The affected Lot No. of CMP sensor is from 1287 to 2321.

Important:

* if in Step 2 the Lot No. of CMP sensor is within the affected range, continue with Step 3 after replacing CMP sensor with new one.



 Insert 5A fuse (P/N:98284926) into a fuse holder (P/N:98418901).

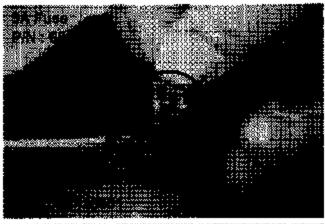
- Cut off the wiring harness of the fuse holder as shown in the right figures.
- Peel off the left and right wiring harness skins of a fuse holder about 10 mm by using a stripper.

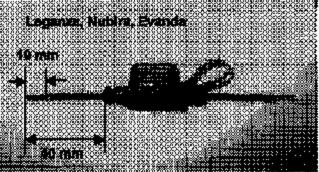
Notice : A stripper for 0.5 to 3.0 mm square wire has to be used.

- Disconnect the negative battery cable by using a 10 mm spanner.
- 7. Remove the air filter housing assembly.
- Remove the fuse box assembly from the fuse box lower cover.

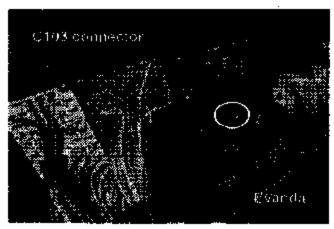
- 9. Remove the bolt mounting C103 connector.
- Disconnect C103 connector from the fuse box assembly.











- 11. Remove shield tape of the wiring harness.
- 12. Remove a 40 mm plece of terminal D3 wiring hamess (Pink / Black) of C103 connector 50 mm from C103 connector rear end in order to insert a fuse holder (P/N : 98418901) as shown in figure (in case of Evanda model).

Terminal P3 of C103 connector 50 mm

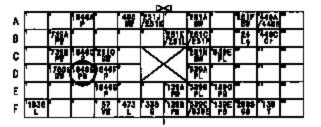
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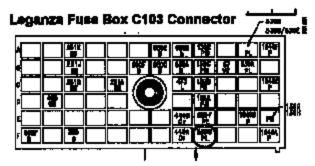
Important:

- In case of Leganza model, remove a 40 mm piece of terminal F9 wiring harness (Pink / Blue) of C103 connector 50 mm from C103 connector rear end.
- * In case of Nubira model, remove a 40 mm piece of terminal E12(J150) or D3(J195) wiring harness (Pink / Black) of C103 connector 50 mm from C103 connector rear end.

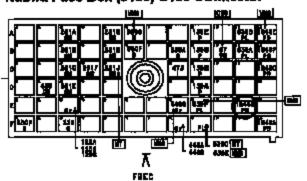
Nubira J195 is model year 2002 vehicle. B.P. VIN of Nubira J195 model is from KLAJC52Z52K728813.

Evende Fuse Box C103 Connector





Nubira Fuse Box (J150) C103 Connector



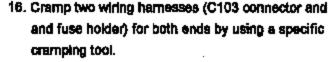
Nubira Fuse Box (J196) C103 Connector



13. Peel off the left and right wiring harness skins of C103 connector about 10 mm as shown in figure by using a stripper.

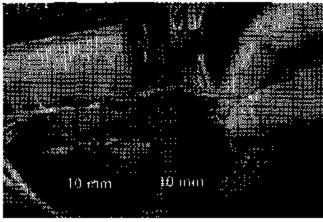
Notice: A stripper for 0.5 to 2.0 mm square wire has to be used.

- Insert the hot melt tube (P/N:98418909) into the wiring hamess of C103 connector.
- Overlap the peeled off hamesses and position the splice clip (P/N:98418908) on the overlapped area.

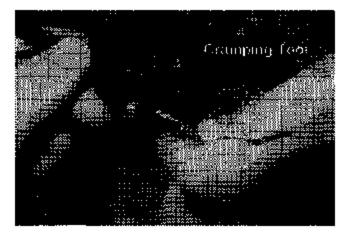


Notice: A cramping tool for 0.5 to 2.0 mm square wire has to be used.







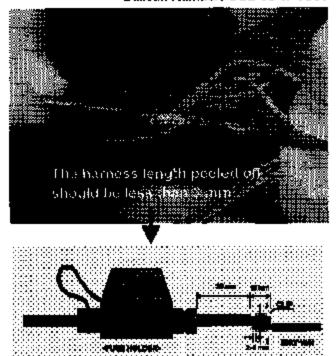


Notice: The hamess length pesied off should be less than 3 mm as shown in figure.

 Verify the cramping condition by pulling the wiring harness of C-103 connector.

- 18. Wind the shield tape on the wiring harness except cramping area to prevent heat damage of the wiring harness.
- Position the hot melt tube (P/N:96418909) at the cramping area.
- Apply a heat to the hot melt tube by using a heat dryer.
- Repeat 14 to 20 procedures for the opposite side.

Bulletin Number: OSB 03-1F-XXX

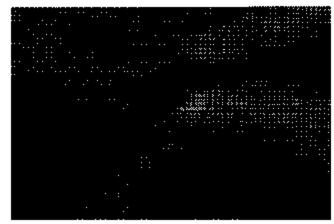






 Curve a wiring harness to prevent a drooping wiring harness as shown in figure.





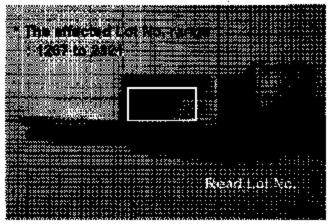
- 23. Wind the shield tape on a widing hamess fully.
- 24. Connect the C103 connector into the fuse box.
- 25, Tighten the bolt mounting C103 connector.
- Position the wiring harness in the fuse box lower cover.
- 27, install the fuse box assembly on the lower cover.
- 28. Install the air cleaner housing assembly with bolts.
- Connect the negative battery cable.
- 30. Start the engine.
- 31. Input the audio security code.
- 32. Stop the engine.

Lanos, Tacuma

- Remove the CMP (Carnshaft Position) sensor, Refer to Service Bulletin Section 1F. Engine Controls.
- Inspect the CMP sensor's Lot No. whether the CMP sensor removed is involved in this recall campaign or not. The affected Lot No. of CMP sensor is from 1267 to 2321.

Important:

- * If in Step 2 the Lot No. of CMP sensor is within the affected range, continue with Step 3 after replacing CMP sensor with new one.
- * In case of Lanca, Tacuma models, don't install the CMP upper cover before adding the in-line fuse because in-line fuse should be positioned at the CMP sensor mounting position. Also, the removal of fuse box assembly is not needed because the in-line fuse should be added to the electrical wiring harness of the CMP sensor.



 Insert 5A fuse (P/N:98234926) into a fuse holder (P/N:98418901).

- Cut off the wiring hamess of the fuse holder as shown in the right figures.
- Peel off the left and right wiring harness skins of a fuse holder about 10 mm by using a stripper.

Notice: A stripper for 0.5 to 3.0 mm square wire has to be used.

- Remove the tube or shield tape covering the wiring harness.
- Cut a terminal 3 widing hamess 50 mm from CMP sensor connector rear end.

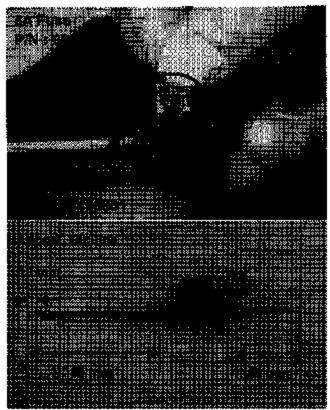
Important:

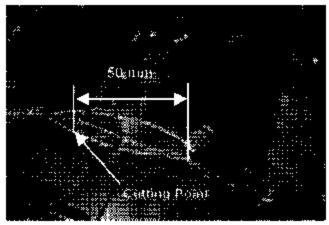
- in case of Tacuma model, a color of terminal 3 wiring is Pink / Brown.
- in case of Lanes model, a color of terminal 3 wiring.
 is Pink.
- Peel off the left and right wiring harness skins of CMP sensor terminal 3 about 10 mm as shown in figure by using a stripper.

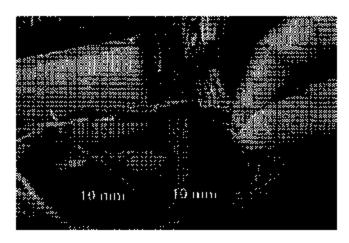
Notice: A stripper for 0.5 to 2.0 mm square wire has to be used.

- Insert the hot melt tube (P/N:96418909) Into the CMP sensor terminal 3 wiring hamess.
- Overlap the peeled off harnesses and position the splice clip (P/N:96418908) on the overlapped area.



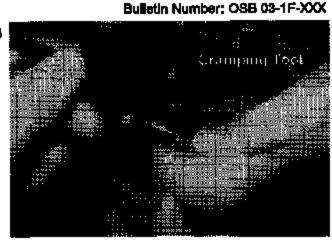




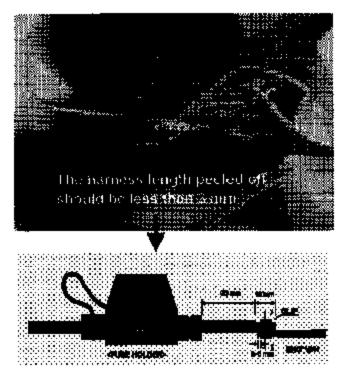


11. Cramp two wiring harnesses (CMP sensor terminal 3 wiring harness and fuse holder) for both ends by using a specific cramping tool.

Notice: A cramping tool for 0.5 to 2.0 mm square wire has to be used.



Notice: The hamess length peeled off should be less than 3 mm as shown in figure.



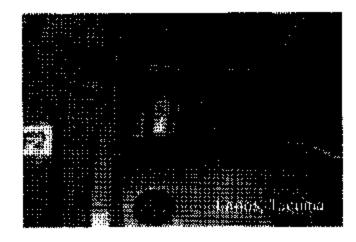
 Verify the cramping condition by pulling the CMP sensor terminal 3 wiring harness.



- Wind the shield tape on the wiring harness except cramping area to prevent heat damage of the wiring harness.
- Position the hot melt tube (P/N:96418909) at the cramping area.
- Apply a heat to the hot melt tube by using a heat dryer.
- Repeat 9 to 15 procedures for the opposite side.
- 17. Wind the shield tape on a wiring hamess fully.
- 18. Connect the CMP sensor connector.
- Position the in-line fuse and harness as shown in the right figure.
- 20. Install the cam cover with the bolts.
- 21, Connect the negative battery cable.
- 22. Start the engine.
- 23. Input the audio security code.
- 24. Stop the engine.







Bulletin Number: OSB 03-1F-XXX

Parts Information:

Part Number	Pert Name	Quantity per Veh.	Remark
10456506	Seneor A-CM/SHF Position	1	FAM II Engine
10456508	Sensor A-CM/SHF Position	1	FAM I Engine
93742507	Fuse Kit-CAM Sensor	1 Set	

Warranty Information:

Operation Code	Operation Description	Operation Time
R413XXX	Inspect for CMP sensor	0.6 Hr / Vehicle
R413XXX	Replace; CMP sensor & Add; in-line fuse	0.9 Hr / Vehicle

Nature Code : N65

Ceuse Code: R17

Causal Part Number : 10456506, 10456506

Distribution : America Samoa, Australia, Austria, Benelux, Canada, Czech, Denmark, Finland, France, Germany, Guarn, Hungary, Iceland, Ireland, Italy, New Zealand, Portugal, Puerto Rico, Romania, Singapore, Slovak, Spain, Switzerland, U.K., U.S.A.

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